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PATENT

Case Docket No. ASMMC.057AUS

Date: June 23, 2004

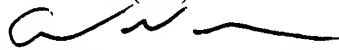
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Leinikka et al.  
Appl. No. : 10/810,415  
Filed : March 25, 2004  
For : SEED LAYER FORMATION  
Examiner : Unknown  
Group Art Unit : 2812

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

June 23, 2004

(Date)

  
Andrew N. Merickel, Reg. No. 53,317


TRANSMITTAL LETTER

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement.
- (X) A PTO Form 1449 listing one-hundred fourteen (114) references.
- (X) Enclosed are sixty (60) references.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

  
Andrew N. Merickel  
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### INFORMATION DISCLOSURE STATEMENT

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Group Art Unit : 2812

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is form PTO-1449 listing 114 references. Copies of disclosed U.S. patents and/or publications are not included pursuant to PTO waiver of the requirement under 37 C.F.R. § 1.98(a)(2)(i) for applications filed after June 30, 2003. Copies of other references are enclosed.

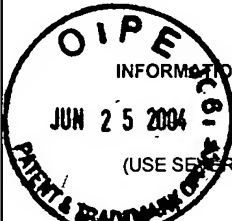
This Information Disclosure Statement is being filed within three months of the filing date of this application and no fee is required in accordance with 37 C.F.R. § 1.97(b)(1), (b)(2), or (b)(4).

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: June 23, 2004

By: Andrew N. Merickel  
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FORM PTO-1449  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. ASMMC.057AUS	APPLICATION NO. 10/810,415
		APPLICANT Leinikka et al..	
		FILING DATE March 25, 2004	GROUP 2812

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1.	3,708,728	1/2/73	Sterling et al.			
	2.	4,058,430	11/15/77	Suntola et al.			
	3.	4,565,747	1/21/86	Nakae et al.			
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	5.	5,281,274	01/25/94	Yoder			
	6.	5,306,666	4/26/94	Izumi			
	7.	5,316,793	05/94	Wallace			
	8.	5,342,652	08/30/94	Foster et al.			
	9.	5,382,333	1/17/95	Ando et al.			
	10.	5,438,028	8/1/95	Weissman et al.			
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EXAMINER	DATE CONSIDERED
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	

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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	29.	6,203,613	3/20/01	Gates et al.			
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	31.	6,284,646	9/4/01	Leem			
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FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	55.	EP 0 387 403 A1	10/20/89	EPO				
	56.	EP 0 394 054 A1	4/20/90	EPO				
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EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
	83.	"Kirk-Othmer Encyclopedia of Chemical Technology," 4 <sup>th</sup> Edition, Vol. 4, John Wiley & Sons, Inc. pp. 841-878, (1992).
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	98.	Lai, Ken K. and H. Henry Lamb, "Precursors for Organometallic Chemical Vapor Deposition of Tungsten Carbide Films," <u>Chem. Mater.</u> , Vol. 7, pp. 2284-2292, (1995).
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EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
	101.	Martensson et al., "Atomic Layer Epitaxy of Copper and Tantalum," <u>Chemical Vapor Deposition</u> , Vol. 3, No. 1, pp. 45-50, (1997)
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	103.	Martensson, "Use of atomic layer epitaxy for fabrication of Si/TiN/Cu structures," <u>J. Vac. Sci. Technol. B</u> , Vol. 17, No. 5, pp. 2122-2128, (Sept./Oct. 1999)
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	110.	Ritala et al., "Effects of intermediate zinc pulses on properties of TiN and NbN films deposited by atomic layer epitaxy," <u>Appl. Surf. Sci.</u> , 120:199-212 (1997).
	111.	Ritala et al., "Perfectly conformal TiN and Al <sub>2</sub> O <sub>3</sub> films deposited by atomic layer deposition," <u>Chem. Vapor Deposition</u> , 5:7-9 (1999).
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	114.	Yang et al., "Atomic Layer Deposition of Tungsten Film from WF <sub>6</sub> /B <sub>2</sub> H <sub>6</sub> : Nucleation Layer for Advanced Semiconductor Devices," Advanced Metallization Conference 2001 (AMC 2001), Conference Proceedings ULSI XVII@2002 Materials Research Society, pp. 655-660.

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